

<b>Notice of Allowability</b>	Application No.	Applicant(s)	
	10/825,941	DIENER ET AL.	
	Examiner	Art Unit	
	Tu T. Nguyen	2877	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 03/10/2006.
2. ☒ The allowed claim(s) is/are 1-4,8-19 and 21.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☒ All    b) ☐ Some\*    c) ☐ None    of the:
  1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.  
**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.
  - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached
    - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
  - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

- |  |   |
|--|---|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892)   | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)                               |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 6. <input checked="" type="checkbox"/> Interview Summary (PTO-413),<br>Paper No./Mail Date <u>3/13/06</u> |
| 3. <input checked="" type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),<br>Paper No./Mail Date <u>12/19/2005</u> | 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment                                       |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit<br>of Biological Material                                 | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance                      |
|  | 9. <input type="checkbox"/> Other _____.  |

### EXAMINER'S AMENDMENT

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Brice Faller on 03/10/2006.

The application has been amended as follows:

**1) Please replace paragraph [0009] in the specification as follow:**

[0009] The technoscope according to the invention is suitable for examining surfaces in restricted spaces, for example the cylinder walls in the inside of combustion motors. The technoscope comprises a shank on whose distal end a pivotable arm with a working device, in particular a measuring device is<sub>1</sub> arranged. At the same time the pivotable arm may be arranged in a first position such that the arm extends in the longitudinal direction of the shank. Furthermore the arm may be pivoted into at least a second position in which the arm extends angled or bent at an angle, respectively, i.e. at an angle  $> 0^\circ$  and  $< 180^\circ$ , preferably at an angle  $> 0^\circ$  and  $< 90^\circ$  to the longitudinal axis of the shank. This design permits the pivotable arm in its first position to be introduced together with the shank through the opening into the space to be examined. Thus the

Art Unit: 2877

shank with the extended arm, thus the arm extended in the direction of the longitudinal axis of the shank, may be introduced into the cylinder space of a combustion motor, for example through the spark plug or glow plug bore or injection nozzle bore. If the arm is located in the inside of the space to be examined, for example the cylinder space of a combustion motor, the arm may then be pivoted into its second position so that the arm may be pivoted out of the longitudinal axis of the shank. This permits an outer distal end of the arm to be brought into a position which is situated radially further distanced from the longitudinal axis of the shank than the outer circumference of the shank. Thus the pivotable arm permits a measuring device attached to the pivotable arm to be brought onto the surface of a space to be examined, which radially is further distanced to the longitudinal axis of the shank than the inner wall of the opening through which the shank was inserted. In this manner one may examine undercuts in closed spaces by way of the measuring device. Thus by way of pivoting the arm, the measuring device may for example be brought onto the inner wall of a cylinder of a combustion motor which has a larger distance to the longitudinal axis of the shank than the wall of the spark plug or glow plug bore through which the shank is introduced into the cylinder.

**2) Please replace all claims with the following:**

1. (currently amended) A technoscope for examining a surface in a confined space, said technoscope comprising:

a shank having a longitudinal axis and a cross section;

an arm which is pivotably mounted to said shank at a first pivot axis, said arm being pivotable from a first position, in which said arm extends in the direction of said longitudinal axis, to a second position, in which said arm extends transversely to said longitudinal axis; and

a working device freely pivotably attached to said arm at a second pivot axis so that said working device contacts the surface to be examined in a self-adjusting manner, said second pivot axis extending normally of a plane in which said arm is pivotable relative to said shank[.]

wherein said working device has a center of gravity spaced from said second pivot axis so that said working device automatically aligns in a vertical direction.

2. (currently amended) The technoscope of claim 1, wherein said arm and said working device can be arranged completely within said cross section of said ~~hank~~ shank.

3. (previously presented) The technoscope of claim 1, wherein said arm has a proximal end which is mounted to said shank and a distal end to which said working device is freely pivotably attached.

4. (previously presented) The technoscope of claim 1, wherein said working device is a roughness measuring apparatus.

5.-7. (canceled)

8. (previously presented) The technoscope of claim 1, wherein said working device has a longitudinal axis which is parallel to said longitudinal axis of said shank when said arm is in said first position.

9. (previously presented) The technoscope of claim 1, wherein said working device has a pair of opposed ends, said second pivot axis being arranged between said ends.

10. (previously presented) The technoscope of claim 1, further comprising an actuation rod received in said shank for pivoting said arm relative to said shank.

11. (previously presented) The technoscope of claim 10, further comprising an adjustment wheel for moving said actuation rod axially.

12. (previously presented) The technoscope of claim 1, further comprising optics received in said shank.

13. (previously presented) The technoscope of claim 1, further comprising a guide sleeve which can be fixed in an opening of a space to be examined, said shank being insertable into said guide sleeve.

14. (previously presented) The technoscope of claim 13, wherein said guide sleeve has an external thread.

15. (previously presented) The technoscope of claim 13, wherein said shank can be held in said guide sleeve so that said shank is displaceable at least one of longitudinally and rotatably with respect to said longitudinal axis.

16. (previously presented) The technoscope of claim 15, further comprising a gauge for reading at least one of penetration depth and angular position of said shank.

17. (previously presented) The technoscope of claim 1, wherein said arm is flexible.

18. (previously presented) The technoscope of claim 1, further comprising an additional shank which can be received through said shank, said additional shank being flexible.

19. (previously presented) The technoscope of claim 1, wherein said working device is a measuring device.

20 (cancelled)

21. (previously presented) The technoscope of claim 1, wherein said second pivot axis is fixed parallel to said first pivot axis.

### **REASONS FOR ALLOWANCE**

The following is an examiner's statement of reasons for allowance:

As to independent claim 1, the prior arts of record, taken alone or in combination, fail to disclose or render obvious a working device freely pivotably attached to said arm at a second pivot axis so that said working device contacts the surface to be examined in a self-adjusting manner, said second pivot axis extending normally of a plane in which said arm is pivotable relative to said shank, wherein said working device has a center of gravity spaced from said second pivot axis so that said working device automatically aligns in a vertical direction, in combination with the rest of the limitations of the claim.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tu T. Nguyen whose telephone number is (571) 272-2424. The examiner can normally be reached on T-F 7:30-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gregory Toatley Jr. can be reached on (571) 272-2800 Ext. 77. The fax



Art Unit: 2877

phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Tu T. Nguyen  
Primary Examiner  
Art Unit 2877

03/13/2006